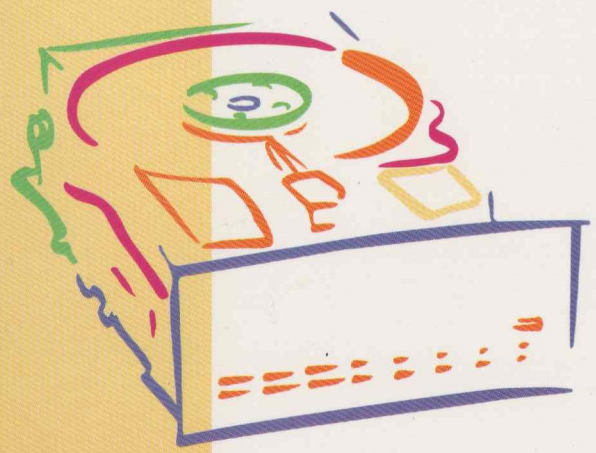
Identity Systems Technology, Inc.
1347 Exchange Drive
Richardson, TX 75081
800/ 723-TECH

Hard Disk Drive Kit

INSTALLATION MANUAL



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SYSTEMS TECHNOLOGY INC

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1.0 Installation and Setup Procedures

1.1 Unpacking

Identity Systems Technology products are designed to withstand normal handling when unpacking and installing the drive. Care must be taken to avoid excessive mechanical shock or electrostatic discharge that can permanently damage the drive and void the warranty. When the drive is not in its shipping container or installed into its proper host enclosure, it must remain on an antistatic surface. To prevent damage to the drive, do not remove the drive from its container until you are ready to install it.

1.2 Inspection of Shipping Container

Carefully inspect the container your drive came in. Look for damage to the box, for example: holes, stains, or signs of crushing. Notify the store where you purchased the product immediately if you observe such damage. Always move the shipping container in an upright position.

1.3 Removal From Shipping Container

Remove the drive from the shipping container only for inspection or installation. The drive is always shipped in an anti-static bag inserted in a foam-insert package. When removing the drive, grasp the drive at the sides, and gently place the drive in its anti-static bag on a clean dry surface. Do not stand the drive on its edge. Do not drop the drive from any height when removing it from the shipping container. This could cause severe damage to the head disk assembly or printed circuit board. Never touch the printed circuit board.

1.4 Moving Precautions

If it becomes necessary to move your computer system, turn off the power to automatically park the heads. Parking moves the heads to a safe, non-data landing zone where they are locked into place. This helps protect the media from the heads accidentally damaging the surface in moving or shipping.

2.0 Mounting Restrictions

2.1 Orientation

The drive can be mounted in many different ways depending on the design of your computer chassis. Do not mount the drive upside down.

2.2 Screw Size Limitation

The drive should be mounted with the screws provided with your drive kit. Screws which are too long will damage board components and will void the warranty.

3.0 Configuration of Drive

3.1 Determining Your Configuration

You can configure the drive in one of two ways.

- The drive is cabled directly to a 40-pin connector on the motherboard.
- The drive is cabled to the supplied adapter card mounted in one of the expansion slots in the computer.

Both configurations use a 40-pin host interface cable.

3.2 Dual Installation

Dual installations require a master/slave drive configuration, where one drive is designated as the primary (master) drive and the other is designated as the secondary (slave) drive. The drive is compatible in dual installations with other intelligent drives that support master/slave configuration. This drive is not compatible with ST-506 drives.

If your installation requires the use of an adapter card, it is useful to know that your floppy drive(s) can also be connected to the adapter card.

3.3 Jumper Settings

The drive has a jumpers marked J11 thru J20 located next to the 40-pin connector on the back of the drive. If you are installing the drive as the only AT interface drive in the system, you do not need to change these jumpers. This is considered a single drive installation.

If you have a dual installation (two intelligent drives), you must designate one of the drives as the master and the other as the slave drive. The jumper pins on the (J19 and J20) connector need to be configured for the dual installation.

To designate the intelligent drive as the master, place a jumper on J20 and remove the jumper on J19 (see figure 3-3). With the drive configured as the master drive, the drive assumes that a slave drive is present. See your existing drive manual for instructions on how to set your drive for slave mode.

To designate the intelligent drive as the slave, place a jumper

shunt on J19 and remove the jumper on J20 (see figure 3-3). When the drive is configured as the slave drive, the drive delays spin up for three seconds after power up reset. This feature prevents overloading of the power supply during power up. See your existing drive manual for instructions on how to set your drive for slave mode.

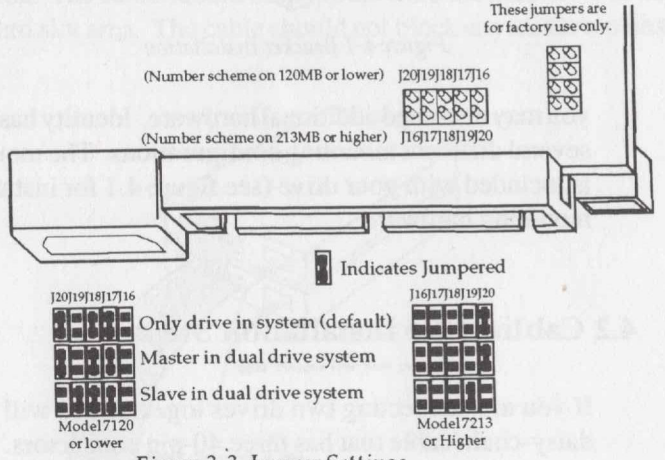
These jumpers are for factory use only.
(Number scheme on 120MB or lower) J20J19J18J17J16
(Number scheme on 213MB or higher) J16J17J18J19J20
Indicates Jumpered
J20J19J18J17J16
J16J17J18J19J20
Only drive in system (default)
Master in dual drive system
Slave in dual drive system
Model7120 or lower
Model7213 or Higher

Figure 3-3. Jumper Settings

4.0 Installing the Drive

4.1 Mounting the Drive

For dual installations, it is usually easier to completely install one intelligent drive in the lower position first. The order of intelligent drives is unimportant if you are using two Identity drives. As explained previously, one must be jumpered as the master drive and the other as the slave drive. When installation is complete, the drives are daisy-chained together.

If your computer does not have a 3 1/2" bay for the harddrive, you may need to install the 5 1/4" mounting rails to the side of the drive. depending on the make and model of your computer

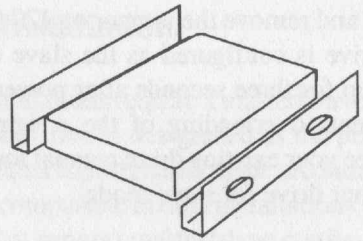

Figure 4-1 Bracket Installation

you may also need additional hardware. Identity has supplied several different mounting configurations. The mounting kit is included with your drive (see figure 4.1 for installation of mounting hardware.

4.2 Cabling the Installation Steps

If you are connecting two drives together you will need the daisy-chain cable that has three 40-pin connectors.

Make sure that the colored edge of the cable is on pin 1 of both drives (see figure 4.2).

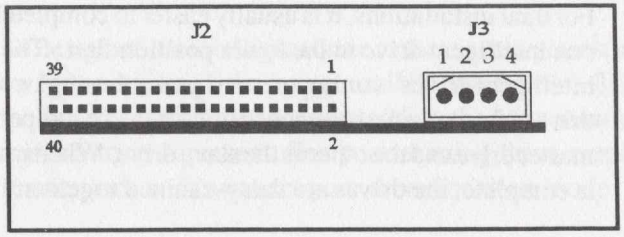

Figure 4-2. Standard Factory Settings

1. Connect the 40-pin interface cable to the 40-pin (J2) connector on the hard drive as shown in Figure 4-2. For dual installations, daisy-chain the two drives together by connecting them with the three-connector interface cable.

2. Route the cable toward the motherboard or the card slot area. The cable should easily route from the hard drive to the card slot area. The cable should not block any air flow paths.

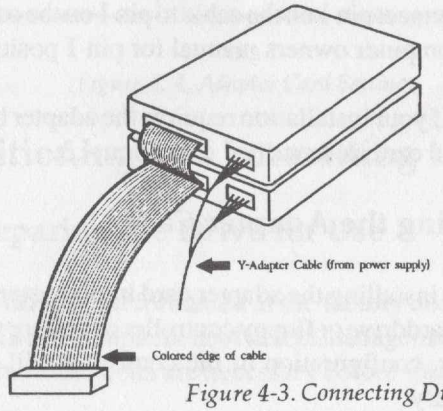

Figure 4-3. Connecting Dual Drives

3. Insert the drive halfway into the drive bay.

4. Connect the power supply cable to the 4-pin power connector (J3) on the drive (see figure 4-2). Dual drive installations: If you do not have two internal power connectors, you will require the y-adapter supplied with your kit to provide power to both units as shown in figure4-3.

5. Attach the other end of the y-adapter cable to the power supply in your computer.

6. Completely insert the drive into the system drive bay.

7. Mount the drive to the drive bay using the appropriate hardware.

8. Connect the interface cable from the intelligent drive to the host in one of the following ways.

- If you have a 40-pin connector on the motherboard, connect the other end of the interface cable to the motherboard connector. Pay close attention to connect pin 1 on the cable to pin 1 on the connector (see computer owners manual for pin 1 positioning).

- If your installation requires the adapter board, install the card as described in section 4.3.

4.3 Installing the Adapter Card

If you are installing the adapter card into a system without an existing harddrive or floppy controller or you are replacing the controller, configuration of the controller will probably be unnecessary.

If you have an existing floppy controller, you must disable the Identity floppy controller. Remove the jumper on (J3) and save it for possible future use (see figure 4-4 for jumper location).

If you wish to disable the harddrive controller, remove the jumper on (J4) and save it for possible future use (see figure 4-4 for jumper location).

If your system has a harddrive LED on the front of your system, you may plug in the LED at position (J2) (see figure 4-4 for jumper location).

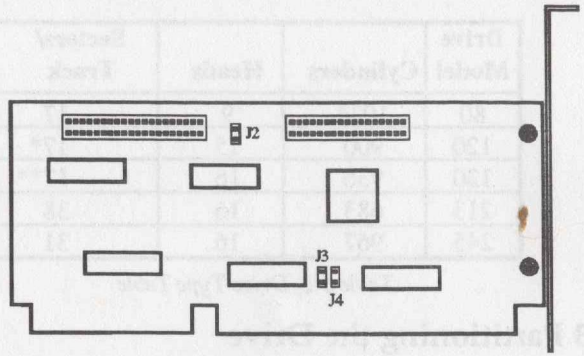

Figure 4.-4, Adapter Card Settings

5.0 Partitioning and Formatting the Drive

5.1 Preparing the Drive for Use

The drive is preformatted at the factory and comes equipped with a full complement of defect management characteristics. No modifications are necessary before installation.

5.2 Setting up Drive Type

Your computer operating system provides an initial setup utility which is either ROM-based or on floppy diskettes. The system setup procedures vary from system to system, but each setup procedure allows you to tell the system what type of hardware you are using. Follow the setup instructions in your computer owners manual for instructions on how to run the setup utility.

Your setup utility procedure asks you to specify the type of drive used in your system. Use the following table to specify your drive type:

Drive Model	Cylinders	Heads	Sectors/ Track
80	1024	9	17
120	900	15	17*
120	936	16	17**
213	683	16	38
245	967	16	31

Table 5-2, Drive Type Table

5.3 Partitioning the Drive

Once you have specified what drive type to use, you need to partition the drive(s). Use the DOS **FDISK** Command to set up your DOS partitions. See your DOS manual for more instructions on your version of DOS.

Most DOS versions that are 3.2 and earlier only allow you to partition the drive up to 32 MBytes. If your DOS has this restriction, you cannot partition your drive to its full capacity. We recommend that you upgrade your DOS to 3.3 or above.

If your DOS is 3.3 or above you may partition the drive to its full capacity.

5.4 Formatting the Drive for DOS

To format the drive for DOS, follow the instructions in your DOS Manual under the Command **FORMAT**. If you installed this drive as your second drive, make certain that you use the correct drive letter in formatting the drive as to not format your existing drive.

* Standard Drive Type.
** For machines that support User-definable drive types. Gives Maximum drive capacity.